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EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,723

Applicant(s)

NGUYEN, NHUT

Examiner

Meless N Zewdu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 8/18/04.
2. Claims 1-33 are pending in this action.
3. This action is final.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "visitor location register controller within said mobile switching center" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of

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the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: "a processing element controller within said mobile switching center" and the "a processing element". Although a "controller" is shown within the MSC, it is not clear whether it is for controlling the "processing element unit" or other functions internal/external to the MSC. If the "controller" is to control the "processing element unit" is has to be indicated as such so as to improve the clarity of the claim.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the structure of "a visitor location register controller within said mobile switching center" is not shown

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controlling/coupled to a visitor location register as claimed. Examiner notes a visitor location register on (fig. 7), but not "a visitor location register controller" within the MSC. The claim can be improved by re-labeling the "controller" in the MSC, as "visitor location controller" and the "processing element unit" as "visitor location register" or even better, as "global visitor location register" since it controls several other visitor location registers.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Ho et al. (6,091,953).

Regarding claim 1, Ho et al. discloses for use in a mobile telecommunications network (abstract, fig. 1) comprising:

a) a mobile switching center (abstract, #104 fig. 1), a plurality of subscribers (abstract, #136, 138 and 140 fig. 1), and a processing element unit (#404 fig. 4, col. 10 lines 9-57), wherein said mobile switching center is capable of communicating with said plurality of subscribers (abstract, fig. 1) and with said processing element unit, an apparatus for providing a distributed processing element unit capable of accessing

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each processing element within said processing element unit (abstract, fig. 1-4, col. 2 line 40 thru col. 3 line 59), said apparatus comprising:

b) a processing element unit (#404 fig. 4, col. 10 lines 27-48) controller within said mobile switching center, said processing element unit controller capable of embedding/attaching information within a temporary identification number of a subscriber (abstract, fig. 1, col. 6 line 11 thru col. 7 line 28; col. 21, line 65-col. 22, line 11), wherein said information locates a processing element within said processing element unit (#202, 102 fig. 2, col. 7 line 29 thru col. 8 line 57; col. 24, lines 12-32).

Regarding claim 2, Ho et al. further discloses the apparatus as set forth in claim 1 wherein said temporary identification number is one of: a Temporary Mobile Station Identification number, and a packet based Temporary Mobile Station Identification number (col. 6 lines 25-49).

Regarding claim 3, Ho et al. further discloses the apparatus as set forth in claim 1 wherein said processing element unit controller is capable of embedding information within said temporary identification number of said subscriber to locate said processing element within said processing element unit by adding an address offset pointer to said temporary identification number (col. 8 line 11-57).

Regarding claim 4, Ho et al. further discloses the apparatus as set forth in claim 3 wherein said temporary identification number is one of: a Temporary Mobile Station Identification number (col. 6 lines 25-49), and a packet based Temporary Mobile Station Identification number (col. 8 lines 31-57).

Regarding claim 5, Ho et al. further discloses the apparatus as set forth in claim 1 wherein said processing element unit controller comprises:

- a) a controller within said mobile switching center (col. 5 line 7 lines 39-56, and col. 9 lines 24-56); and
- b) computer software instructions operable by said controller to execute within said controller one (fig. 6-12) of: a message routing function application (#103 fig. 1, col. 6 lines 25-49), a load distribution function application (abstract, col. 22 lines 43-51), a temporary identification number application (abstract, col. 6 lines 25-49), and an address information embedding application (#202 fig. 2, #406 fig. 4, #508 fig. 5A, col. 8 lines 32-37, col. 11 lines 12-22).

Regarding claim 6, Ho et al. further discloses the apparatus as set forth in claim 1 wherein at least one subscriber record is located within said processing element unit (col. 10 line 27 thru col. 11 line 54).

Regarding claim 7, Ho et al. further discloses the apparatus as set forth in claim 6 wherein at least one subscriber record is located within at least one processing element within said processing element unit (fig. 4-25, col. 10 lines 27-48).

Regarding claim 8, this claim is rejected for the same reason as set forth in claim 6, inherently, wherein at least one application software program is located within said processing element unit (fig. 4-25, col. 10 line 27 thru col. 11 line 54, col. 17 lines 48-63, and col. 24 lines 50-64).

Regarding claim 9, this claim is rejected for the same reason as set forth in claim 8, inherently, wherein at least one application software program is located within at

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least one processing element within said processing element unit (fig. 4-25, col. 10 line 27 thru col. 11 line 54, col. 17 lines 48-63, and col. 24 lines 50-64).

Regarding claim 10. The apparatus as set forth in claim 6 wherein said mobile switching station is capable of sending a workload message to said at least one processing element where said subscriber record is located (col. 22 lines 43-64).

Regarding claim 11. The apparatus as set forth in claim 10 wherein said mobile switching center is capable of assigning a subscriber to a processing element if said subscriber is new to said mobile switching center (col. 14 lines 19-25, col. 17 lines 48-63).

Regarding claim 12, Ho et al. discloses for use in a mobile telecommunications network (abstract, fig. 1) comprising:

a) a mobile switching center (abstract, #104 fig. 1), a plurality of subscribers (abstract, #136, 138, and 140 fig. 1), and a processing element unit (#404 fig. 4, col. 10 lines 9-57), wherein said mobile switching center is capable of communicating with said plurality of subscribers and with said processing element unit (abstract, fig. 1-4, col. 2 line 40 thru col. 3 line 59),

b) a method for providing a distributed processing element unit capable of accessing each processing element within said processing element unit (abstract, fig. 1-4, col. 2 line 40 thru col. 3 line 59), said method comprising the steps of:

c) assigning a temporary identification number to a subscriber within a processing element unit controller within said mobile switching center (col. 6 lines 25-49); and

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d) embedding (attaching) information within said temporary identification number within said processing element unit controller within said mobile switching center (abstract, fig. 1, col. 6 line 11 thru col. 7 line 28; col. 21, line 65-col. 22, line 11), wherein said information locates a processing element within said processing element unit (#202, #102 fig. 2, col. 6 line 11 thru col. 8 line 57; col. 24, lines 12-32).

Regarding claim 13, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 14, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 15, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 16, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 17, this claim is rejected for the same reason as set forth in claim 6.

Regarding claim 18, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 19, this claim is rejected for the same reason as set forth in claim 8.

Regarding claim 20, this claim is rejected for the same reason as set forth in claim 9.

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Regarding claim 21, this claim is rejected for the same reason as set forth in claim 10.

Regarding claim 22, this claim is rejected for the same reason as set forth in claim 11.

Regarding claim 23, Ho et al. discloses for use in a mobile telecommunications network (abstract, fig. 1), comprising:

a) a mobile switching center (abstract, #104 fig. 1), a plurality of subscribers (abstract, #136, 138, 140 fig. 1), and a visitor location register (#204 fig. 2), wherein said mobile switching center is capable of communicating with said plurality of subscribers and with said visitor location register (abstract, fig. 2-13),

b) an apparatus for providing a distributed visitor location register capable of accessing each visitor location register site within said visitor location register (fig. 2-13, col. 6 line 11 thru col. 7 line 65), said apparatus comprising:

c) a visitor location register controller within said mobile switching center (fig. 2-13, col. 7 line 29 thru col. 8 line 51; col. 24, lines 12-32), said visitor location register controller capable of embedding information within a temporary identification number of a subscriber (fig. 2-7, col. 13 line 52 thru col. 14 line 25; col. 21, line 65-col. 22, line 11), wherein said information locates a visitor location register site within said visitor location register (fig. 2-13, col. 8 lines 37-57, and col. 9 line 57 thru col. 10 line 4).

Regarding claim 24, this claim is rejected for the same reason as set forth in claim 2.

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Regarding claim 25, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 26, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 27, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 28, this claim is rejected for the same reason as set forth in claim 6.

Regarding claim 29, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 30, this claim is rejected for the same reason as set forth in claim 8.

Regarding claim 31, this claim is rejected for the same reason as set forth in claim 9.

Regarding claim 32, this claim is rejected for the same reason as set forth in claim 10.

Regarding claim 33, this claim is rejected for the same reason as set forth in claim 11.

Response to Arguments

Applicant's arguments filed on 8/18/04 have been fully considered but they are not persuasive. Issues argued by applicant and responded to by examiner are presented in the following manner.

Argument I: with regard to claims 1 and 12, applicant argues that the emphasized features, an apparatus for providing a distributed processing element unit capable of accessing each processing element within said element unit, and a processing element unit controller within said mobile switching center, said processing element unit controller capable of embedding information within a temporary identification number of a subscriber, wherein said information locates a processing element within said processing element unit, are not disclosed or suggested, or even hinted at in the HO reference.

Response I: examiner respectfully disagrees with the argument. First, although it is provided by rules and regulations that an applicant can be his/or her own lexicographer, the phrase "processing element unit" is not a word/phrase of invention and carries no significant patentable weight. Second, the phrase "processing element unit" is so broad that any CPU or controller located in a given MSC can read on the claimed feature. Third, the reference of Ho et al. discloses a "distributed signaling message routing in a scalable wireless communication system" including a VLR within MSC, which can be considered as a processing element within a processing element. Fourth, "the message router reading the identity of the serving MSC from the TMSI assigned to the mobile unit

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therefore routes messages and traffic to the serving MSC" reads to the feature, "wherein said information locates a processing element within said processing element unit."

Argument II: with regard to claim 23, applicant argues by saying that the emphasized features, an apparatus for providing a distributed visitor location register capable of accessing each visitor location register site within said visitor location register, and a visitor location register controller within said mobile switching center.

Response II: examiner respectfully disagrees with the argument. In that, the serving MSC (see col. 24, lines 18-32) can be considered as "an apparatus for providing a distributed visitor location register capable of accessing each visitor location register site within said visitor location register, and a visitor location register controller within said mobile switching center."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N Zewdu whose telephone number is (703) 306-5418. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Meless Zewdu

Examiner

M. Z.

31 October 2004.


WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600